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ABSTRACT

Emerging trends in the administration of Canadian school systems is the subject of this address. The topic is restricted to three major areas of educational change: the expansion of the function of education in society, the fundamental reorganization of educational programs, and the new organizational problems centered around increasing bureaucratization of schools and increasing professionalism of the school staff. In each of the three areas, the author presents the particular trends having the most fundamental effect on the function of administering school systems. (MF)

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EMERGING TRENDS IN THE ADMINISTRATION OF CANADIAN SCHOOL SYSTEMS

For some time now it has been taken for granted by Canadian educators that our schools are out of date. They were designed to be functional in a society which no longer exists and in fact which went out of existence years ago. Meanwhile our society has been changing at an ever accelerating rate in almost every aspect of its fabric from its technologies and occupational structures to its most fundamental patterns of social relationships. Despite the awareness of educators of the problem, however, the machinery of the institution of education in our society has been so ponderous that efforts to bring about adaptive change have had only limited success. As we look back on the past, however, we should not overlook the fact that while change has been slow in coming, the initial periods of change movements inevitably require time to muster consensus as to appropriate directions for the movement to take. This indeed seems to be the case in education for in so many of its aspects pronounced trends in direction now seem tc be firmly established and in just the last few years seem to be moving ahead with gathering speed. The momentum generated by these changes appears to be spreading even to trends of less recent origin which in many cases are also continuing with quickened pace.

In the context of being on the threshold of what appears to be a renaissance period in education it is a difficult task to encompass all of the trends which are significant. Even when the topic is limited to trends in the administration of school systems the task is no less difficult because as a facilitating function administration is profoundly affected by any change in objectives or program. To make the topic

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manageable, then, I have restricted the focus to three major areas of change within each of which are the particular trends which in my view will have the most fundamental effect upon the function of administering school systems. These three major areas are the expansion of the function of education in society, fundamental reorganization of program, and new organizational problems. Little attention is given to the more detailed, though important, processes of administering school systems but if the trends identified continue to grow they will substantially reshape the setting in which these more detailed processes take place and hence will considerably alter the processes themselves.

Expansion of the Function of Education in Society

Increased Universality

One of the most obvious and deeply entrenched trends in education is the relentless increase in universality. The history of Canada, like that of most western nations, marks a steady extension of education from the narrow domain of the upper social classes to all classes of society with a gradual increase in the level of education regarded as essential for all citizens. Only about a half century ago could it be claimed that elementary education was even approaching universality in Canada. As this level of education became established for all, the proportion of youngsters attending secondary school gradually increased and as that increased in turn, the numbers attending post secondary institutions increased. The last decade has seen a tremendous expansion of secondary school education to the point where it is widely recognized as universal even though actual enrolment statistics do not yet fully support the contention.

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One of the important contributing factors to the trend is the increased availability of schooling for compulsory aged youngsters. Increasing numbers of provinces are reorganizing school districts and along with those which have long since done so are making a variety of provisions such as buses, dormitories and in extreme cases correspondence courses which are providing realistic education opportunities for youngsters in even the most remote geographical areas. This factor together with the sharp increase in holding power in secondary schools everywhere should be expected within five to ten years to culminate the trend toward schooling for all at elementary and secondary levels. But that, of course, does not end the trend toward universality for it has already burst out in other places.

One of the places it is bursting out is in the area of pre-school education. Kindergarten programs have traditionally been controversial among public educators. Some school systems across Canada have been operating them for years with every conviction that the benefits are well worth the costs. Other school systems have preferred to put all available money into what they regard as the mainstream grades of education, pointing for justification to many research studies which show that the initial advantage of a kindergarten experience tends to decrease through the first few grades until at about the fourth grade the effect is unnoticeable. Thus the debate has gone but in recent years the picture has changed a great deal. Increasingly the impotence of the kindergarten is being seen as a direct result of the rigidity of the primary level programs in the public school system. As more flexible primary programs are being developed it is clear that the advantages of kindergarten are considerably enhanced. Further, as the objectives of education have shifted

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from almost exclusive concern about content to serious concern for the full development of the child including his personality and social relationships, the importance of kindergarten has again increased. In this perspective the research findings about decreasing returns in content learning, tend to be less relevant. But perhaps the most powerful stimulus to the development of kindergartens stems from changing patterns of life in our society. As the proportion of working mothers increases rapidly to the point where even now it is simply unrealistic to expect that a pre-school child will have a mother at home, and as this effect inevitably decreases the part the family can play in early training, the schools are finding it increasingly necessary to fill in the gap. The need may be seen scurrilously as pressure for babysitting services but more fundamentally it is the traditional residual function of the schools to pick up and perform educational tasks which can no longer be performed effectively by other agencies of society. Because of the fundamental changes taking place in our society then, and because of the schools' increasing ability to capitalize upon pre-school programs, it seems likely that in the near future kindergarten programs will become virtually universal and that there will be a general downward extension of the age at which youngsters begin school. Already at a time when kindergartens themselves are only sporadically implemented across the country, some systems are experimenting with junior kindergartens which start youngsters at age four. Initially these programs are designed to help immigrant and slum youngsters as a headstart effort but clearly, if they are successful in catering to disadvantaged children, their use would quickly spread for others. Another indication of the impending downward extension is the rapid growth of private nursery schools which take in youngsters all the way from infancy up to kindergarten age.

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This growth may be seen as reflecting a social need which in due course will increase to the point where it must be recognized by the public school systems as properly falling within the public domain.

But as well as this downward extension there is also, of course, the almost revolutionary upward extension. Until a few years ago the form the upward extension would take was puzzling. The university was the only institution in sight as the candidate for the next onslaught of universality and indeed, trends were certainly moving in that direction. Increasing numbers of high school students were becoming eligible for admission to universities and the university programs were being broadly extended from the narrow traditional academic fields. The total proportion of the age group attending university has been increasing rapidly year by year indicating that the masses are indeed moving in. The puzzle was that it was difficult to conceive how the university could become truly universal in view of its deeply entrenched commitment to the education of higher ability students. As long as this tradition was maintained, and there seemed little sign of it crumbling, the university would remain a somewhat selective institute even though broadly expanded.

The answer to the puzzle seemed to come in the last few years with the development of post-secondary but non-university institutions called community or junior colleges. The reluctance of universities to compromise their admission standards yet at the same time the tremendous social and economic pressures for providing higher levels of education to increasing numbers of youth had caused a temporary impasse in the march toward universality. As a result there was a bottled-up demand which was released like a flood where community colleges have now been established. In Ontario a system of 20 community colleges

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was opened just three years ago and this year they will enroll 30,000 full time students and another 30,000 part time students. Such fantastic growth must be interpreted as success in fulfilling social and economic needs. Similar successes in other provinces indicates the very real likelihood that in the future, community colleges will become a major part of our total educational provision and that universality at the post secondary level will take the form of a combination of effort between universities and community colleges. Whether community colleges will be under the direct jurisdiction of public school systems as in some provinces or separate from them as in others, it seems inevitable that they will be more closely related to secondary education than the relatively aloof university has ever been. Thus the new movement is likely to have profound effects upon the administration of public school systems even where they are not directly connected organizationally.

The other major growth area is in adult education. For those who are not directly involved it is hard to believe the extent to which adult education is growing. In 1956 there were one million adults in Canada registered in organized classes where specific enrolment figures were kept. This number was raised to two million by 1963 and to three million by 1969. There are now some Canadian school systems where the adult enrolment exceeds the total of the enrolment in the regular school system and there are some major cities, like Vancouver, where the adult enrolment exceeds the secondary school enrolment. In the face of a movement like this it will obviously be necessary in the near future, if not now, to give up our usual feeling that the main business of a public education system is in the education of school aged children with the education of adults as a peripheral extra and move to the position of considering the education of adults as a mainstream concern fully

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coordinate with the education of school age children. This outlook has already had substantial effect upon the organization of many advanced school systems and will surely spread as the movement grows.

The trend toward universality, then, can be expected in the near future to shift the main concern of public school systems from an almost exclusive preoccupation with elementary and secondary education to a broad concern which will encompass vastly expanded pre-school, post-secondary and adult programs. With surprising speed education is becoming a major pervasive element in the lives of people of all ages and of all segments of society.

Decreased Homogeneity

Along with the explosion of education from primary concern with school aged youngsters to concern with all strata of society has come an explosion of educational content from a narrow traditional academic fare to an incredible variety of special purpose programs. Within elementary and secondary schools we have seen programs develop to encompass the full range of academic ability. We have seen the growth of opportunity classes and gifted classes and other forms of special provision for different ability levels. Still other kinds of provision have been made for youngsters with physical handicaps. At the same time there has been adaptation of programs to various different social class groups. The composite high school has virtually transformed secondary education by moving from a narrow university-bound academic program to an imposing array of offerings designed to meet virtually all possible needs and interests. The inner city school is undertaking major revisions of its curriculum to provide for the special needs of slum and immigrant

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children. In post-secondary education, along with the explosion in numbers, has been an explosion in new course provisions. Para-professional and technological programs of an incredible variety are now being offered.

A most outstanding feature of the last two decades in education, then, has been a complete break from the concept of having a narrow standard curriculum to the concept of designing programs according to whatever is suitable to the particular group and functional for the purposes of that group. This has led to a degree of complexity in programing which could scarcely have been visualized even a few years ago. Yet the trend seems now to be relatively stable in its direction so that despite the difficulties of administering such programs it seems likely that they will continue to grow in complexity. In the face of all this it seems dubious that our present school organizations can cope with much more program variety, in fact they often seem to be showing strain with the present amount. It seems likely, then , that basic changes will be required in school organization if it is to continue to meet the demands. This point will be returned to later.

Fundamental Reorganization of Program

New Motivation

About a century ago educators faced the major problem of attempting to work out a system which would make the concept of mass education feasible. About all they had to work with was the previous tradition of a variety of tutorial forms which were clearly not usable for the new purpose. Essentially they were grappling with the problem of production processing which is a central concern of most kinds of organizations. Their eventual answer was the grade

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system which proved to be highly successful and has persisted to this day. For this long period it has in fact been the basic element of school organization around which everything else revolves. In essence the grade system involves three fundamental assumptions. The first is that for both disciplinary and instructional reasons continuous interaction between teacher and pupil is required. This means that the pupil must be under the constant supervision of the teacher. The second is that there must be common educational content set out in specific courses of study, divided into years, which all students will progress through in the sequence. The third assumption is that it is feasible to impose a common pace so that all students will move through the courses of study at the same rate with exceptions being handled through acceleration and non-promotion.

In recent years this basic form of organization has been seriously questioned regarding all three of its underlying assumptions. Continuous interaction is being blamed for producing a spoon-feeding effect which means that it subtly transfers responsibility for learning from the student to the teacher, turning the student into a passive object rather than an active participant. The common content is questioned on the grounds that in our complex society it no longer makes sense to conceive of a single restricted body of knowledge which will be desirable for everyone. The common pace is attacked because of its obvious incompatibility with current knowledge about the variability in intelligence. When it is known that some students in a class can learn at more than three times the rate of others it seems unbelievably inefficient to continue supporting the assumption. The attacks need not be dwelled upon, however, because they are now widely accepted. But as convincing as they may be, it has been a long difficult task to design an effective alternative to the grade system.

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Various attempts to design new systems have tended to reject one or more of the above assumptions. The Dalton and Winnetka plans, as early experiments, rejected the assumptions of continuity of interaction and common pace. The more recent elementary school unit plans focus upon rejecting common pace by providing for three pace levels as youngsters progress through the curriculum. Team teaching on the other hand has tended to reject the assumption that continuous interaction is required, at least in as far as its individualization feature is concerned and to some extent has rejected the assumption of common content inasmuch as its small group features are concerned. The more recent individualization or non-graded programs have grown out of these previous experimental attempts and frequently attempt to reject all three assumptions. At the moment such programs seem to warrant considerable enthusiasm as a realistic replacement for the grade system and probably point the direction for the future to an entirely new system of school organization.

Probably the most significant feature of new individualization programs is the extent to which they reject the need for continuous supervision. That is to say that they depend upon developing a climate for learning within which the student assumes responsibility for his own progress. This is a fundamental organizational change from the stick to the carrot as the basic form of motivation. As such it is not a new concept. It was basic to the philosophy of the progressive educationists of the last generation and, though it had sporadic successes, tended to founder on what now seems to be the naive belief that self-motivation of students would arise simply if they were released from supervision. The current attempts along these lines respresent a new realism. It is now recognized that responsibility does not emerge just by granting freedom but must be deliberately

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and painstakingly developed in the students. This view stems from the realization that there must be forces of control in any kind of organized setting. The control, however, does not have to take the form of close personal supervision to be effective. Sociologists have discovered and elaborated upon the tremendous force exerted upon all of us which comes from the expectations held by others in our social grouping for our behavior. The problem as it is now seen involves shifting the control from enforced teacher expectations to student norms. As many examples now prove, if students develop norms to the point where they expect of each other responsible self-motivated behavior, there is no loss of control. On the contrary, control is not only more effective than otherwise but the potential for student learning is so vastly increased as to make a whole new kind of experience out of schooling.

Along the way it has also been learned that the norms of the student group are not changed by orations from teachers or by some form of devious manipulation. As successful examples become more common it is apparent that in each case the shift of student norms results from teachers and administrators taking the students into complete confidence and openly discussing with them the problems of spoon-feeding, supervision, and self-responsibility. Where this has been effectively done the students generally have responded with enthusiasm and maturity and have begun the process of reshaping their own norms.

The effectiveness of this process was illustrated by a junior high school I visited not long ago. Over a period of a year it had been attempting to develop student self-responsibility in both instruction and in general school

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conduct. It was most impressive to step into a completely unsupervised cafeteria full of 500 bouncy young adolescents and find that nothing disastrous was happening. There was normal noise from conversation and laughter but apparently none of the periodic behavior problems which arise in a supervised setting when the teacher is not looking.

Examples such as this, and many less visible ones in direct learning situations, seem to be turning what has been a rather idealistic hope into a reality in education. We may expect a great deal more fumbling and many failures but it seems evident that a new kind of motivation is now developing which can form the basis of a whole new system of instructional organization. Whereas the by-product of the grade system is training in irresponsibility and alienation, the newer emphasis on self-responsibility not only enables an individualized approach to education, but enables our young people to develop a personal quality which is probably at least as important as all of the knowledge they will acquire in the course of their education.

New Curriculum

Quite apart from recent attempts to replace the grade system, in fact considerably predating such attempts, the traditional concept of curriculum in our schools has been undergoing radical change. Curriculum used to be regarded as a fixed body of content in each subject which was rationally planned to maximize sequence and integration and which was provincially prescribed. This is changing in two ways. First, the source of control is shifting from the provincial department of education to the local school system and, even beyond that, to the local school and teacher through the provision of a wide variety of options and a deemphasis on

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specific content in external examinations. Secondly, the concept of curriculum as a set of course outlines which rule on what the student should learn and when, is changing to the view that the what-when decisions should be made right in the learning situation with student interest as a major factor. With this view the problem of curriculum planning is not to select and sequence the content but rather to provide a wealth of learning resource materials from which the student and teacher may choose. At all times then, the student and teacher have available, in readily accessible form, many interesting and soundly developed learning alternatives which form the basis for a unique series of learning experiences.

As the course outline and the textbook have declined in importance, the various curriculum planning agencies have swung into high gear in the production of learning materials. Departments of education, curriculum specialists in school systems, and research and development agencies like OISE, are now learning and refining a whole new set of skills in producing these materials. Although many materials remain in print form other learning technologies are rapidly being developed. An experiment OISE is involved with in the Ottawa schools has established a system called Information Retrieval Television (IRTV) which attempts to bring to the service of the teacher and student the wealth of educational films which have already been developed. When a teacher wants to show a film in class, instead of having to order the film a week or two in advance, then arranging for all the equipment to be set up in the room, the IRTV system enables the teacher to order the film by telephone from an extensive subject indexed catalogue and three minutes later the film appears on closed circuit television sets in the classroom. This system is presently being used for traditional classes but it is easy to see its adaptability

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to individualized instruction and the great flexibility it would have for that purpose. Multi-media kits are also being developed which combine materials in print form with others which are sound recorded and video recorded. Extensive work is also being done in the development of computer assisted learning which started off with attempts to simulate the teacher as a drill master but, as concepts of good teaching have changed, is now being seen as providing the means for an individual student to have access to the whole world of learning resources which is being developed.

The New Program

Schooling as we have known it has involved grades, classes, prescribed curricula, and teachers who have been the central initiators. In the future, even the near future, it appears that the school program will be built upon the presumption of a student who is, at least in large measure, self motivated. He will be surrounded by well developed learning materials with teachers available as resource persons rather than as the directors of the process. These ingredients will be put together in a combination of individual activity and flexible groupings. The groups will be based upon students' current interests and levels of development and will provide for social companionship and intellectual interaction.

Not many such programs currently exist in full blown form but enough do exist incorpprating some of these features to warrant considerable confidence in the feasibility. As a result it seems safe to predict this kind of program as the emerging pattern because it represents the confluence of so many well established trends in both education and society. In education we have marked trends in the direction of the decentralization of curriculum, emphasis upon learning resources

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rather than courses of study, deemphasis on rigid grade standards involving repetition and skipping, a decrease in teacher authoritarianism, and increasing attempts to base learning upon student interest. Many of these trends are actively supported by the modern revolution in our society and its insistence upon personal involvement and rejection of meaningless regimentation.

Transition from grades to the new program will necessarily be gradual. Since it involves basic changes in norms for students, teachers, and administrators alike, no individual school can advance too far beyond the general level of development of the new norms in the whole society. We can expect, then, a broken edged advance with full implementation by any school depending upon the whole mass of public education being not too far behind. This will involve a great deal of leadership by school administrators. It will also demand the highest level of creativity in designing new forms of school organization. There are appalling problems of coordinating to be solved as new structures are designed which are compatible with the new program.

New Organizational Problems

Bureaucratization and Humanization

Up to this point attention has been focussed on trends which are now in existence in varying degrees of entrenchment and which can be expected to continue into the future. A major present organizational problem, however, results from two well established but incompatible trends which are running headlong into each other. These are the trends of increasing bureaucratization of schools on the one hand and increasing professionalism of the school staff on the other.

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One of the early elaborators of the problem, Ronald G. Corwin[1], sees it as applying to many kinds of organizations other than schools so we are not alone in struggling with the problem. But that is little consolation.

The increasing bureaucratization of schools is a direct response to the trends discussed here in the first section. Schools have vastly increased in complexity because of increases in total size of the educational enterprise and increases in the variety of types of education within the larger systems. All this complexity demands coordination and control and the bureaucratic methods are the orthodox ways of increasing rational control. They involve the following six elements:

1. A clearly marked hierarchy of positions with formal authority attached to each;
2. A clear system of division of labor so that each person in the organization knows what his job is;
3. A system of regulations governing the behavior of all members of the organization;
4. A system of regulations specifying the procedures which are to be followed in the work flow of the organization;
5. Provision that official interactions between people in the organization be on an impersonal basis following organizational lines rather than on the basis of friendship;
6. Assurance that judgements about the people in the organization are made exclusively on grounds of their competence in performing the job rather than on other extraneous grounds.

[1]Ronald G. Corwin, "Professional Persons in Public Organizations," Educational Administration Quarterly, vol. 1, no. 3, Autumn, 1965, pp. 1-22.

As common as it is for teachers and administrators to decry the advancing bureaucratization of schools, when one looks at the actual elements which add up to bureaucracy, each in turn seems essential in coping with the problems of control and coordination which are presented by the modern school system. Indeed, D.A. McKay[1] verified that while teachers deplored advancing bureaucracy they felt on the whole that each individual feature of bureaucracy should be increased. However ambivalent this may seem it nevertheless contains a certain degree of realism. None of us like the overall effects of bureaucracy but as long as the trends toward universality and heterogeneity of program continue, there seems to be no alternative but to increase its prominence in schools.

Whether we like it or not, then, schools are being driven to increased bureaucratization. On the other hand there is a long term trend toward increased professionalism in both teachers and administrators. This is evident in the continual increases in the period of training for these positions and in the sharply increasing demand for higher, more creative levels of performance. Yet the two trends are incompatible because the very essence of professionalism is that the high standards of competence and the high level of training enable the professional to make decisions on the basis of his judgement of the merits of the case. In a bureaucracy, however, decisions are programmed in advance in the form of regulations so that when an individual teacher or administrator is faced with a decision he asks what regulation applies to this case, rather than what are the merits of this case. Because of the advancing complexity of schools the area within which teachers and administrators are able to make professional judgements has gradually been whittled away as more and more regulations have been added to gain coordination and control.

[1] D.A. McKay, "An Empirical Study of Bureaucratic Dimensions and Their Relation to Other Characteristics of School Organization." Unpublished Ph.D. Dissertation, University of Alberta, 1964.

The problem of reconciling these two major trends is looked upon pessimistically by many who have examined the problem. The strength of the forces behind bureaucratization seems on the face of it to indicate only one solution, that is, the gradual demise of professionalism to the point where teachers and administrators could at best be seen as technicians with high levels of training but little discretion in the application of their skills. But then the scene changed dramatically. Before professionalism was deluged, student activism emerged as a major social force in universities giving a new dimension to the problem. It now has become clear that the problem of bureaucracy versus professionalization must be seen as just a special case of the real problem which is bureaucracy versus humanization. It clearly involves a dilemma not only for teachers and administrators but also for students whose activism can only be interpreted as a protest against bureaucratic education. But not only the nature of the problem has been changed. The arena also has shifted from the setting of calm intellectual discussion to the ramparts of student activism.

To adopt the simplistic solution of seeing bureaucracy as the villain and attempting to eliminate it is completely unrealistic. It would merely produce chaos. The fact is that our present degree of complexity cannot be supported without the strong control which a bureaucratic model provides. The only direction of a solution, in my view, is to change the organization of schools in fundamental ways so that less control is needed. This involves the basic shift referred to earlier. It means creating an organizational form in which both staff and students are self-motivated rather than being reluctant or even antagonistic and thus having to be coerced into what the system requires them to do. Only in this way can the mountain of control mechanisms be stripped away which account for most of the elaborateness of school organizations.

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Interestingly enough, this solution to the major organizational dilemma is completely supportive of the trend in program organization. Supplanting the grade system and its whole set of organizational concepts by individualized learning situations provides the basic setting for the development of self-motivation and for encompassing the complexities of a modern educational program without the masses of regulations which we have previously considered necessary. Both for the program purpose and the organizational purpose this will require massive involvement of both teachers and students in the operation of schools. The involvement must be expressed not only in the direct planning of their own activities but also in representative ways in the formation of all of the policies governing the school.

It is this involvement in policy formation which is probably the hardest of the trends I have mentioned for administrators to accept. It means actually sharing with other groups the powers which administrators have traditionally held. And, of course, these other groups simply do not have the background of experience in running organizations which we have previously considered essential for those making important decisions. The common distaste of administrators for such proposals may be partly an attempt to preserve their status though for the most part it stems from genuine concern about the welfare of their organization. At this point all that can be said in comfort is that those organizations which have already gone through part of this traumatic experience, and OISE is one, have gradually built confidence in the responsibility, maturity, and competence of each successive burgeoning group in wielding its newly won powers. Provided that the process of acquiring power does not predispose the group against its healthy exercise, it comes as a shock to those steeped in orthodoxy to find the tremendous potential

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for valuable contributions which has previously been unrecognized and unused. The major remaining unsolved problem in my view is how such involvement in policy formation can be obtained without an intolerable proliferation of committees. It is certainly to be hoped that some solution can be found, though it sometimes seems possible that the only solution will be a revision of what we regard as intolerable.

If the future lies along the path described here, we are in for changes which will challenge the leadership skills of school administrators as they have never been challenged before. We already see these challenges facing administrators at the university level and being met with varying degrees of success. It is to be hoped that when the movement hits the public school systems with its full force the additional time to observe and think will enable school administrators to effect a more orderly transition than is proving to be the case in some universities.

Routinization of Innovation

As the various trends described here emerge and gather force, schools are confronted with a tremendous number of changes which will eventuate in almost complete transformation of their function in society, their program, and their organization. The change movement we have been through in the recent past has itself caused widespread disruption and yet it seems clear now that these have been only the preliminary skirmishes. How can school systems possibly stand the demands for change which will be placed on them in the future?

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Many of the present problems of instability and change are caused because schools have been static in organization for so long that few have had the capacity to initiate and implement change. As a result of recent experiences, many have now gone through their first round of innovation and look back on it with a mixture of despair and exhilaration. An optimistic note, however, may be drawn from the analogy to the exercising of long unused muscles. Studies indicate that the capacity of an organization to change must be learned and exercised. It is hard at first and, although it leaves a certain feeling of virtue, also takes its toll in pain. With continued exercise, however, it becomes easier and easier to the point of becoming routine. It seems strange looking back that it could have been so difficult initially. The final trend I would point to, then, underlies the feasibility of all the others. It is the trend of our schools and school systems increasingly to develop the capacity to change so that change itself becomes routine.

An object is in a stable state when it is motionless but its stability is completely disrupted when it is pushed. It is interesting to observe, however, that the disruption does not last because if the object continues to be pushed it may achieve a constant velocity which is also a steady state. The point can be carried even one step further to note that a constant rate of acceleration also is a steady state. If we are to meet the challenge of the future, schools must develop the capacity to change at the acceleration level, each change being faster, more efficient, and more fundamental than the one before, yet paced so that stability does not give way to frenzy.